

## Human Resources Department

**Date: 4-10-2025**

## CURRICULUM VITAE



### PERSONAL INFORMATION

Faculty Member Name: **Mohammad Hassan Ahmad Ahmad**

Academic Rank: **Assistant Professor**

College: Aviation Sciences

Department: Aviation Electronics

Nationality: Jordanian

Address: Amman.

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### ACADEMIC QUALIFICATIONS

- **B.Sc.** Communication and Electronics Engineering
- Applied Science University, Amman, Jordan 2001
- **M.Sc.** in Communication Engineering
- University of Jordan, Amman 2005.

**Thesis Title:** " Modeling of Wave Propagation Over Different Terrain and Environments Using the Parabolic Equation "

- **PhD.** in Electrical Engineering
- University of Massachusetts, USA, 2017,

**Dissertation title:** Spectral Domain Fast Multipole Method for Solving Integral Equations in Electromagnetic Wave Scattering.

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### ACADEMIC EXPERIENCE

#### 1. PhD Academic Experience

2022 - 2025: Assistant Professor at Applied Science University, Bahrain.

2017- 2022 Assistant Professor at Zarqa University, Jordan

#### 2. MSc Academic Experience

2008 - 2013: lecturer at King Saud University, Saudi Arabia

2006 - 2008: lecturer at Al-Quds College, Jordan.

### NON-ACADEMIC EXPERIENCE

NA.

### CURRENT MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- Jordanian Engineers Association JEA – 2001

### HONORS AND AWARDS

1. Writing a dissertation fellowship spring 2017, University of Massachusetts, USA.
2. Doctoral fellowship for academic year 2015-2016, University of Massachusetts, USA.
3. Teaching assistantship for academic years 2014-2015 and fall 2016, University of Massachusetts, USA.

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### SERVICE ACTIVITIES

2022 - 2025: Course Director in the department of Electrical and Mechanical Engineering, Applied Science University, Bahrain

### THE MOST IMPORTANT PUBLICATIONS IN LAST FIVE YEARS

1. Mohammad H. Ahmad, "Efficient Methods For Solving Electromagnetic Wave Scattering From Dielectric Objects Using The Method Of Moments With The Interpolation Fast Fourier Transform Method ", Telecommunications and Radio Engineering, Vol. 83, No 9, 1-12, 2024.
2. Mohammad H. Ahmad, "The Execution Of The Multilevel Fast Multipole Algorithm Using Fourier Analysis To Solve Plane Wave Scattering From Perfect Electric Conductor Surfaces ", Telecommunications and Radio Engineering, Vol. 83, No 1, 41-52, 2024.
3. Mohammad H. Ahmad, "Solving Electromagnetic Wave Scattering Using Artificial Neural Networks", Progress In Electromagnetics Research M, Vol. 122, 31-39, 2023.
4. Mohammad H. Ahmad, "Efficient Method for Solving Electromagnetic Wave Scattering from Two-Dimensional Perfect Conductor Surfaces Using Fourier Series Approximation of the Green's Function", Radioengineering, Vol 30, No 4, pp. 611-616, 2021.
5. Mohammad H. Ahmad, "Fast Method For Solving Integral Equations Of Electromagnetic Wave Scattering From Perfect Conductor Three-Dimensional Objects Using Fourier Series", Electromagnetics, Vol 41, No 6, pp. 420-431, 2021.
6. Mohammad H. Ahmad and Dayalan Kasilingam, " Three-Dimensional Modeling of Wave Propagation over Different Types of Terrains and Environments Using the Parabolic Equation Solved by Higher Order Approximation of the Finite Difference Method", Indonesian Journal of Electrical Engineering and Informatics, Vol 9, No 2, 2021.
7. Mohammad H. Ahmad and Dayalan Kasilingam, "Spectral Domain Fast Multipole Method for Solving Integral Equations of Electromagnetic Wave Scattering," Progress In Electromagnetics Research M, Vol. 80, 121-131, 2019.
8. Kasilingam, D., A Fascia and Mohammad H. Ahmad, "Fast Algorithm for Implementing Spatial Frequency Analysis of Electromagnetic

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- Scattering," IEEE Antennas and Propagation Symposium (APS), Fajardo, Puerto Rico, June, pp. 1561-1562, 2016.
9. Kasilingam, D. A. Fascia, Mohammad H. Ahmad and J. Summerfield, "Fast Spatial Frequency based Analysis Technique for Electromagnetic Scattering," IEEE International Symposium on Antennas and Propagation (APS), Vancouver, Canada, July, pp. 754-755, 2015.
  10. Mohammad H. Ahmad and Mohamed K. Abdelazeez, "Propagation Modeling in the Troposphere Using the Parabolic," 7th Jordanian International Electrical and Electronics Engineering Conference proceeding, Amman, Jordan, April 11-14, pp. 13-20, 2011.
  11. Mohammad H. Ahmad and Mohamed K. Abdelazeez, "Modeling of Wave Propagation over Different Realistic Types of Environments Using the Parabolic Equation," Dirasat Magazine, Engineering Sciences, April, Vol. 34, pp. 1-19, 2007, Amman, Jordan.
  12. Mohammad H. Ahmad and Mohamed K. Abdelazeez, "Propagation Modeling of the Ground Waves Using the Parabolic Equation," 6th Jordanian International Electrical and Electronics Engineering Conference proceeding, Amman, Jordan, March 14-16, Vol.2, pp. 535-541, 2006.

### RESEARCH LINK (Scopus and Google Scholar)

- <https://www.scopus.com/authid/detail.uri?authorId=57189697134>
- <https://scholar.google.com/citations?user=RO7UIqAAAAAJ&hl=en>
- [https://www.researchgate.net/profile/Mohammad\\_Ahmad74?ev=hdr\\_xprf](https://www.researchgate.net/profile/Mohammad_Ahmad74?ev=hdr_xprf)
- <https://orcid.org/my-orcid?orcid=0000-0002-4714-0102>

### LANGUAGES

- Arabic, English.